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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/536,937	01/12/2006	Yigal Moscovitz	U 015786-5	8327

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LADAS & PARRY
26 WEST 61ST STREET
NEW YORK, NY 10023

EXAMINER

MCELHENY JR, DONALD E

ART UNIT	PAPER NUMBER
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2857

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/16/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/536,937	MOSCOVITZ ET AL.	
	Examiner	Art Unit	
	Donald E. McElheny, Jr.	2857	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-40 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>01/12/06;05/02/06</u> . | 6) <input type="checkbox"/> Other: ____. |

1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. Claims 1-40 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter and the claimed invention lacks patentable utility.

Please be advised that the "Interim Guidelines for Examination of Patent Applications for Subject Matter Eligibility" was signed on Oct 26, 2005 and posted on the uspto.gov website. The link is:

<http://www.uspto.gov/web/offices/pac/dapp/ogsheet.html>

Also see updated (Eighth Edition, Revision 5 (August 2006)) MPEP 2106, which covers algorithm based and computer implemented inventions and the manner in which they may be claimed and find statutory basis under 35 U.S.C. 101.

These claims are directed to a inventive algorithm couched in method and system type claims, which states the inventive gist as data computations per se, to an algorithm per se, that lacks the algorithm results implemented into the real physical world.

The system claims call for various means, but at best the basis for such are the algorithm calculations, and as evidenced from the method claims that claim corresponding steps. There is no disclosure in the written specification nor drawings for any specific structure to carry out the various means, no unique circuitry nor computer code nor even a specified flow chart for the algorithm for enabling a computer implemented software embodiment. Claims where the inventive gist is directed either

explicitly only to an abstract idea, or verbal description of a mathematical algorithm, or (even where and when disclosed and enabling) to a computer running an abstract idea algorithm process, or general inventive algorithm process (or equivalent system), and lack any requisite real world practical utility with either a physical transformation, or useful, tangible and concrete results, or lack the clear physical transformation into the real world of the calculated algorithm results, are considered non-statutory under the updated "Guidelines". Note that under current updated Office policy even when exists a claimed physical input sensor supplies the real-world input data, or a computer system is recited, such does not place the claimed invention into the domain of statutory subject matter. It is the claimed algorithmic basis invention which is analyzed under the Guidelines to determine if it meets the required statutory subject matter conditions set forth therein.

3. The following is a quotation of the second and fourth paragraphs of 35 U.S.C.

112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Subject to the following paragraph, a claim in dependent form shall contain a reference to a claim previously set forth and then specify a further limitation of the subject matter claimed. A claim in dependent form shall be construed to incorporate by reference all the limitations of the claim to which it refers.

4. Claims 1-40 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claims fail to completely set forth a real world practical use implementation or a useful, concrete and tangible result that is statutory subject matter in basis. For

these reasons the claims therefore appear incomplete in claiming essential portions of the disclosed invention that includes a statutory subject matter implementation basis (if such exists in the specification as filed). The body of these claims appear to fail to ever accomplish an end result of any useful, concrete and tangible real world practical nature that is statutory subject matter based, and thus are unclear how and when such any inventive desired result and inventive purpose as set forth in their preamble is ever reached and accomplished. Throughout the claims the various calculations appear to never be further used, nor how they cooperate, for any useful real world end result that is a physical transformation into the real world, or a useful, concrete and tangible that is beyond a mere abstract idea or human actions that are mental thought process. Note that even when sensor sources and computer supported basis were explicitly recited for such calculations that the current updated computer implemented invention "Guidelines" state that such data gathering and calculation supportive structure/steps fail to give statutory weight to such type abstract idea or mathematical algorithm inventions.

Because the claims lack essential portions to support the invention as to support and meet a statutory basis criteria, they appear to be incomplete in setting forth the intended invention. Therefore, all claims appear as being incomplete for omitting essential steps/structure for supporting such desired results and missing essential and necessary relationships and statutory subject matter criteria, and such omission amounting to a gap between the steps that are recited. See MPEP § 2172.01.

The claims 21-40 also appear indefinite as it is unclear what the various means are intended to be covering and supported by within the disclosure as filed, as no structure or software basis can be found in the application as filed.

Claims 19 and 39 are also indefinite because their preamble call for "wherein one or more of the following queries are utilized" and then in the bodies of these claims there are never any such limitations set forth.

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claims 1-40 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. As stated above, there does not appear to be a proper enabling basis for the claimed and implied structure found in claims 21+ for the various claimed means.

7. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter, and lacking an enabling specification at the time of filing for the instant claims. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o) and (p).

See the above remarks regarding a lack of teaching of a minimum necessary basis for enablement and basis for claimed structure and computer implemented software.

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

10. Claims 1-6, 18, 21-26, and 37-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kershner et al. (5838262).

The differences in the teachings of this reference with respect to that of the instant claims and application are principally of arbitrary nomenclature each has chosen and used to set forth the concepts, and thus do not involve the concept of invention and would have been obvious to one of ordinary skill in the art that they are arbitrary selections and cover the equivalent functions and features. For example while applicants call for "approach" and "fan" geometric relationships which relate to the unclaimed vehicle's flight path, such are met by the teachings in Kershner et al. of the various descriptions to flight path, parameters envelopes, profile matrices, grazing lines,

etc. that define the relationships of the flight vehicle with the mission objectives and relationships with respect to the terrain and locations of interest that are either to be avoided (e.g. threats) or to be followed and kept in view (such as communications windows). Thus these various data relationships are continually processed (i.e. interrogated) per the mission objectives and presented to the system user. The various azimuths, fans and angles of various parameters relating to communications or threats, etc., are used in the data processing to provide the user with the directions for the mission objectives, and thus include terrain hugging flight patterns to avoid threats, and flight paths windows for keeping within mission objectives, and thus these features of dependent claims are deemed also taught, albeit using different terminology.

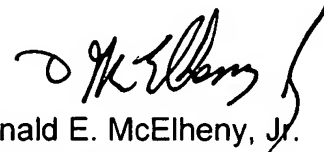
11. The prior art is deemed of background interest only, lacking teaching of the specific sensor tool components arrangement for the specified operational measurements for use in the algorithm for deriving the updated model and earth parameters.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Donald McElheny, Jr. whose telephone number is 571-272-2218. The examiner can normally be reached on Monday-Thursday from 7:30 to 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoff Marc, can be reached on weekdays at telephone number 571-272-2216. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2857

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Donald E. McElheny, Jr.
Primary Examiner
Art Unit 2857